

Title (en)

METHOD FOR OPERATING AN X-RAY DEVICE, X-RAY DEVICE, COMPUTER PROGRAM AND ELECTRONICALLY READABLE STORAGE MEDIUM.

Title (de)

VERFAHREN ZUM BETREIBEN EINER RÖNTGENVORRICHTUNG, RÖNTGENVORRICHTUNG, COMPUTERPROGRAMM UND ELEKTRONISCH LESBARES SPEICHERMEDIUM

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN DISPOSITIF À RAYONS X , DISPOSITIF À RAYONS X, PROGRAMME INFORMATIQUE ET SUPPORT D'INFORMATIONS LISIBLE ÉLECTRONIQUEMENT

Publication

EP 3384846 B1 20210324 (EN)

Application

EP 17164593 A 20170403

Priority

EP 17164593 A 20170403

Abstract (en)

[origin: EP3384846A1] Method for determining a stiffness information of a medical instrument, method for imaging support during a minimally invasive interventional procedure, x-ray device, computer program and electronically readable storage medium Method for determining a stiffness information of a medical instrument (18, 19, 19') used during a minimally invasive interventional procedure in a vascular system (30) of a patient (6) by - recording a three-dimensional volume image (23) of the vascular system (30) at least in the intervention region, - deriving from the volume image (23) three-dimensional vessel course information, in particular including centerlines (31) and/or surface information and/or volume information for at least vessels used by the instrument (18, 19, 19') during the interventional procedure and/or the position of ostia (32) along at least a part of the vessels, - recording a two-dimensional projection image (33, 33') of the instrument (18, 19, 19') using an x-ray device (1), wherein the x-ray device (1) and/or the projection image (33, 33') are registered to the volume image (23), and - determining a stiffness information of the instrument (18, 19, 19') by evaluation of the projection image (33, 33') using segmentation information determined by segmenting the instrument (18, 19, 19') in the projection image (33, 33') and/or the vessel course information.

IPC 8 full level

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CPC (source: EP US)

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A61B 6/504 (2013.01 - EP US); **A61B 6/5235** (2013.01 - US); **A61B 6/4441** (2013.01 - EP US); **A61B 6/481** (2013.01 - US);
A61B 6/5223 (2013.01 - US); **G06T 7/30** (2016.12 - US); **G06T 2207/10081** (2013.01 - US); **G06T 2207/30101** (2013.01 - US)

Cited by

CN111407403A; WO2021063617A1; US11717358B2; US11229773B2; EP3476294A1

Designated contracting state (EPC)

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